

## ABSTRACT

A device for digital treatment of audio signals, especially for treating patients with audiophonatory disorders. The device includes an analog audiofrequency signal input, an analog-digital encoder, an envelope detector, a digital limiter, a multiplier, a synthesizer, and a digital-analog converter. The analog-digital encoder reflects an input analog audiofrequency signal by a first sequence of digital values; the envelope detector establishes, from the first sequence of digital values, a second sequence of digital values reflecting the envelope of the input audiofrequency signal; the digital limiter establishes a third sequence of defined digital values, from the second sequence of digital values; the multiplier establishes a sequence of modulated emission frequency values according to values of the third sequence of digital values; the synthesizer elaborates a digital audio signal from the sequence of emission frequency values; and the digital-analog converter produces an output analog signal from the digital audio signal.